As the first anniversary of the terrorist attacks of Sept. 11 on the World Trade Center, the Pentagon, and Western Pennsylvania approaches, ATC applauds the heroism of those who risk their lives to help others.

As the United States Armed Forces proudly and courageously respond to the call to duty to defend the United States in the War on Terrorism, ATC continues to strive to provide them with the safest and most effective vehicles, weapons and equipment available to accomplish their mission.

ATC Globe

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In This Issue...

ATC Globe

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From the ATC Commander

by Colonel Mary Brown, Commander, Aberdeen Test Center

Col. Mary K. Brown

While we are trying to stay cool through the "dog days" of summer, it is exciting here as ATC heats up with new initiatives and expanded technologies.

In May, I established the Objective Force Office to focus on interoperability/network centric technologies in the test arena. Under the leadership of Harry Cunningham, the group will help us test technologies associated with the Objective Force transformation initiative. We will combine robust partnerships with the use of modeling and simulation techniques and tools to perform technical testing and evaluation that can synchronize technologies across the battlespace.

I am pleased to announce that the American Association of Laboratory Accreditation has certified ATC's Transducer Calibration Laboratory in compliance with the ISO/IEC 17025-quality standard. ATC has also partnered with the Maryland ISO Consortium to become an ISO registered organization. Our commitment to ISO 9000 certification will give you the assurance that the test data you receive is being developed using procedures that are compliant with international quality standards.

We are anticipating legislation that will allow ATC to form a limited liability company (LLC). The LLC will be a government sponsored multidiscipline company with partnerships in academia, business, and other government agencies. The LLC would reduce the restrictions imposed on the commercial use of test and evaluation facilities and shorten the time of bid acceptance. This one-stop company will have unique facilities, high-level expertise and improved logistics to improve the test process.

Leadership roles are changing in our higher command as Maj. Gen. Robert E. Armbruster recently assumed command of the U. S. Army Test and Evaluation Command.

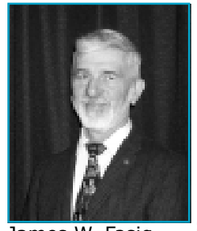
Leadership roles are changing in our higher command as Maj. Gen. Robert E. Armbruster recently assumed command of the U. S. Army Test and Evaluation Command. Maj. Gen. Armbruster came from the Office of the Assistant Secretary of the Army for Acquisition, Logistics, and Technology where he was the Deputy for Systems Management. Brig. Gen. Dean Ertwine, commander of the U.S. Army Developmental Test Command, departed in August and Col.(P) Marvin McNamara assumed command of the U.S. Army Developmental Test command, leaving his previous assignment as deputy director of the Joint Air and Missile Defense Organization.

Recent visits of the Secretary of the Army and the Vice Chief of Staff of the Army were a complete success. We are looking forward to supporting a September 17th conference being held at APG that will focus on Army Transformation and the Objective Force. The event, sponsored by the Aberdeen Proving Ground's Science and Technology Board, will include senior Army leadership, congressional delegations, and local community leaders.

We are excited about working with our new leadership. I am fascinated by the new initiatives we are exploring, and will be glad to answer any questions you might have. I look forward to new and dynamic partnerships and continued program success.

Technical Director's Corner

by Jim Fasig, Technical Director, Aberdeen Test Center



James W. Fasig

It seems like just a short time ago, but it's been more than five years now that ATC has been on a strategic planning journey. As a leg of that journey, early in July ATC leadership reviewed the command's progress to date against our strategic plan followed by a planning meeting offsite later in the month to update the plan. The offsite agenda was ambitious, but with some advance guidance to the participants and using a workshop approach, we believe it turned out to be one of our most productive strategic planning meetings yet.

Workload at the test center is up across the board and the good news is that thanks to innovative strategic planning several years ago, we are postured to execute it. Early planning focused on strengthening core competencies, streamlining processes, reducing management structure and improving communication by eliminating layers between the folks on the ground and top-level management. ATC leadership subsequently identified the skills required to address the emerging technologies associated with Army Transformation and after coming out from under years of severe hiring restrictions, we've aggressively hired from a variety of first-rate universities to augment or replace the existing intellectual properties already employed by ATC along with those of our outstanding mission support contractors. In addition to some major personnel changes along the way, we've fine-tuned some others and will continue to do so in order to supply the right match of knowledge and expertise horsepower at critical leadership and technical skill demand points.

I know we've made reference to our strategic plan from time to time in previous editions of "The Globe" and involved many of you in various planning initiatives; however, for others I expect it has been transparent – a "behind the scenes" process. Whatever the case, with this writing of the Technical Director's Corner I want to take this opportunity to invite you to personally contribute to ATC's strategic planning process. We sincerely welcome and value your insights and input so we can better position for future performance. I'm providing my contact information as well as that of my action officer, Linda Worthington, for that purpose. We look forward to hearing from you.

We sincerely welcome and value your insights and input so we can better position for future performance.

***James W. Fasig**, Technical Director, Aberdeen Test Center, 400 Colleran Road, Aberdeen Proving Ground, Md. 21005-5059; Jfasig@atc.army.mil or **Linda B. Worthington**, C, Test Business Mgt Team, same mailing address, or email lworthin@atc.army.mil , commercial 410.278.4442 or DSN 298.4442.*

ATC Globe

On the Cover

Secretary of the Army Thomas White talks to Jim Fasig, ATC technical director, following an aerial tour of ATC test sites and ranges.
Photo by HARRY MCMULLEN

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Commander *COL Mary K. Brown* Technical Director *James W. Fasig*
Editor *Vonnie Hughey* Design *International Imaging Center*

ATC Boats Aid in Rescue

One of Aberdeen Test Center's range operations patrol boats was the first to respond after a tugboat collided with a cargo ship on the Elk River on February 25.

At approximately 6:45 a.m., the Swift, one of two tugboats towing a barge, and the A.V. Kastner, a 550-foot freight ship from Nova Scotia, collided.

When the mayday emergency call was sent out, the ATC patrol boats picked up the call on the radios back at the dock. ATC radioed back to one of the boats involved in the accident and it was determined that their boats were closest to the scene of the accident and could be of assistance.

Capts Wade Hague (left) and T. Wayne Fletcher received a mayday call from the freighter that collided with a tugboat. They found two life rings, but both were empty.
Photo courtesy of RAY CROWELL/PAGE ONE PHOTOGRAPHY

1st Capt. Wade Hague and Capt. Wayne Fletcher were the first to arrive at the scene of the accident. By the time the patrol boat arrived, the located crewmembers had been rescued from the water by the second tugboat on the scene. ATC's patrol boat was then used to transport the crewmembers to the waiting ambulance and helicopter on shore.

A second range operations boat operated by Capts. Martin Jacquette and Mark Hall were dispatched to the scene to stand by in case additional help was needed. Both boats returned to ATC around 10:30 a.m.

The boats dispatched were not rescue boats but 42-foot patrol boats used by the test center to patrol Aberdeen Proving Ground's restricted water zones.

According to Ken Fletcher of ATC's marine services, ATC is always glad to assist if there is a problem in nearby waters.

An ATC dive team was also sent to the scene of the accident, but their assistance was not needed.

Five people were rescued from the accident. One person was flown to the University of Maryland Shock Trauma Center. Two others were taken to Union Memorial Hospital in Elkton and treated for minor injuries. Two others rescued were not injured. Sadly, the boat's captain and three deckhands went down with the ship.

The A.V. Kastner, a carrier operated by a subsidiary of USG Corp., was carrying a load of gypsum to Baltimore, where USG has a wallboard manufacturing plant.

The Swift, along with the Buchanan 14, was towing a barge containing dredging equipment.

While the Swift sank and the barge being towed partially capsized, the Buchanan 14 and the A.V. Kastner sustained only minor damage.

*Article provided by **Susan Hagan**, ATSS, ATC Public Affairs Office*

Phillips Army Airfield Holds Open House

ATC's Phillips Army Airfield (PAAF) held an open house June 29 in order to showcase their capabilities and introduce their staff, since many ATC employees have never had the opportunity to visit the airfield.

Chris DeMarco, Doss Aviation Inc., discusses the many uses of one of ATC's UH-1H Helicopters to Amy Parker and Joanna Herrmann, ATSS Contractors, at the PAAF Open House.
Photo by SUSAN HAGAN, ATSS

Vonnie Hughey has worked at ATC for 22 years but before the open house she had never visited the airfield. "I'm glad I came," she said, "it's really interesting to see what the airfield has to offer."

Even people who had previously visited the airfield enjoyed the open house. Judy French said, "I had been to PAAF but never had a briefing or tour on that facility. I found the individual briefings on the equipment and instrumentation used by the pilots to be very informative. I was unaware of all the services and airfield support that they provide to enhance ATC's testing mission."

The open house featured tours of the hanger area and control tower, and a briefing on PAAF operations. Visitors could also view a demo of the Forward Looking InfraRed (FLIR) System, a thermal imaging surveillance camera attached to a helicopter. The FLIR is used for security purposes.

PAAF's mission is to provide aircraft services and airfield support to augment and enhance ATC's testing mission. John Mullin, airfield commander, said, "We take that seriously [the mission]. We want to be considered a test center, not just an airport."

PAAF was constructed in 1943 but was not transferred from the Garrison to ATC until 1997. The airfield's facilities and capabilities include three runways, an air traffic control tower, ramp and hard surface areas, three drop zones, testing and training areas, a modern fuel facility with a 25,000 gallon storage capacity and developable land.

The runways are capable of handling any aircraft and of supporting all-weather operations during the day and night.

"I really enjoyed the open house; I left with useful information I didn't have before about the airfield's capabilities," said Sgt. Thomas Frederick.

One of the capabilities that many people are unaware of is that PAAF offers military flight scheduling. There is no grade requirement; anyone can submit a flight request to travel. However, flights must be requested at least four days in advance.

According to Mullin, ATC has the highest utilization rate and the best-equipped aircraft in the Army Test and Evaluation Command (ATEC). Currently ATC has two UH-1H Aircraft. Each is capable of carrying 11 passengers and is equipped with headsets. The UH-1Hs are used for everything from transporting VIP's to extinguishing range fires using a 240 gallon Bambi Bucket.

PAAF aircraft has also supported many testing missions. "We do all kinds of things for all different customers," Mullin pointed out. Some of these missions include unmanned aerial vehicle (UAV) development, aerial photography, hazardous cargo transport, search and rescue and water rescue, paradrops and Post defense and security.

PAAF is staffed by John Mullin, airfield commander and pilot; Tom Skhal and Allan Johns, also pilots; and Valine Muehlberger, program analyst. They also utilize contractor personnel from Doss Aviation, Inc.

*Article provided by **Susan Hagan**, ATSS, ATC Public Affairs Office.*

ATC Brings Home Two Gold Excellence in Federal Career Awards

Two ATC employees came home with Gold Excellence in Federal Career Awards from the Baltimore Federal Executive Board's 35th Annual Excellence in Federal Career Awards Program at Martin's West on May 3. Seven ATC employees also received silver awards and five received bronze awards.

Karen J. Zeto received the **gold award** for Equal Employment Opportunity Service. Zeto serves as ATC's Equal Employment Opportunity Officer. She pioneered the Command Wide Multiskill Initiative providing career opportunities that might not otherwise have existed to give employees the opportunity to gain experience and be competitive for jobs with career progression, as well as providing job opportunities for a local school for severely handicapped children, John Archer. Zeto provides these students with opportunities to become productive members of the ATC workforce. Zeto also ensures compliance of Federal Women's Program tenants by maintaining a policy memorandum that promotes an organization free of sexual harassment.

William D. Kindley received the **gold award** for Outstanding Supervisor – Trades and Crafts. Kindley supervises a group of skilled employees that operate heavy equipment in support of testing. Kindley is described as the one the command calls on whenever there is a difficult job that requires immediate attention. For example, he and his team worked long hours to repair damage from the tornado that struck Aberdeen in August 2001 and again in reaction to the events of September 11th. After September 11th, Kindley and his team worked to set up perimeter barriers, helped to acquire protective devices for critical test assets, and assisted the Post in installing lighting at the main gates to enhance overall security.

Colonel Brown, far right, poses with some of the federal career awardees. Left to right, front row: Karen Zeto, Louise Beyer, Nellie Duprey. Back row: William Kindley, Retired Army Colonel Andrew Ellis, former ATC commander and Jeremy Sprout.

ATCs Silver winners are:

• Outstanding Supervisor (Grades 13 and Above) - **Nellie M. Duprey**. She is described as one of the most respected, capable, and productive employees at ATC; exerting leadership, exhibiting initiative and demonstrating an exceptional capability to excel in a wide spectrum, technical environment.

• Outstanding Para-Professional – Technical, Scientific, and Program Support - **Robin T. Gibson**. Gibson works to make Army vehicles and soldiers systems safer for our soldiers. Her technical knowledge and testing procedures have been acquired over the years from actual test programs.

• Outstanding Clerical - **Louise V. Beyer**. Beyer is described as the ultimate focal point to insure that all administrative functions

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are properly and efficiently handled.

• Community Service - **Barbara M. White**. White actively volunteers to many worthwhile causes including individually counseling families, manning the Dual Addiction hot line, and co-chairing ATC's Harvest for the Hungry campaign.

Eugene Burchette (right) accepts his bronze award for outstanding supervisor-GS12 and below.

• Rookie of the Year – Para-Professional - **George R. Appel**. Appel has only been a Federal employee since May 2001 and already he has established a reputation along with his team for delivering quality and timely products.

• Outstanding Para-Professional/ Administrative Management and Specialist - **Linda P. Tignor**. Tignor's multi-disciplined administrative support to ATC's Military Environmental Technology Demonstration Center has improved the efficiency of the team by enabling others to focus on the technical aspects of the mission.

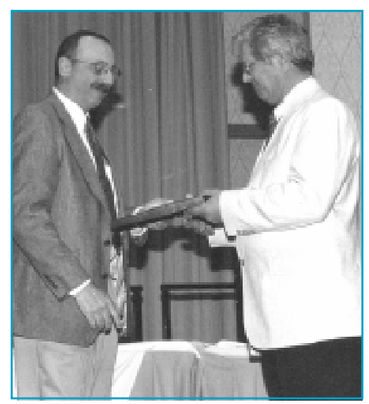
• Outstanding Federal career - **Colonel (Retired) Andrew G. Ellis**. Ellis ended a 27 year career on October 1, 2001 as a highly decorated officer who displayed a superior leadership ability, strong technical knowledge and the ability to plan and execute to meet the Army's goals.

ATCs Bronze winners are:

• Outstanding Supervisor – GS 12 and Below - **Eugene L. Burchette II**. Burchette uses his technical skills and leadership abilities to manage a group of technicians engaged in geodetic survey and mapping at ATC. This team provides support to explosives and weapons firing operations.

• Outstanding Trades and Crafts - **Robert M. Flowers**. Flowers runs ATC's receiving warehouse and "for every item received at ATC, he can tell you where it came from, who ordered it, how it arrived, who signed for it, whose hand receipt is was posted to, and how much it cost."

• Outstanding Professional – Administrative Management and Specialist - **Patricia Hooker**. Hooker works to be certain funding is received and executed according to budgetary guidance, and obligation and disbursement goals. Her hard work and dedication have led to an excellent record of efficient execution of funds.



Robert Flowers (right) accepts his bronze award for outstanding trades and crafts.

David King (right) accepts his bronze award for outstanding professional-technical, scientific and program support.

• Outstanding Professional – Technical, Scientific & Program Support - **David S. King**. King works to make life safer for the warfighter by his performance in the management of a variety of soldier systems test projects and as the lead test director throughout the development of Land Warrior.

• Rookie of the Year – Professional - **Jeremy Sprout**. During a 12 week summer internship, Sprout provided a new database system and a JAVA based application that made it very easy to add new information and run queries and searches on the existing data. Additionally, all of the software was developed in such a way that it can be easily expanded and configured to meet changing needs.

Congratulations to all of ATC's winners for their hard work and recognition.

*Article provided by **Susan Hagan**, ATSS, ATC Public Affairs Office*

SECRETARY OF THE ARMY Visits Aberdeen Proving Ground

Aberdeen Proving Ground hosted a visit from Secretary of the Army Thomas E. White, which included a command overview by post leaders, visits to key organizations, an aerial tour of the Edgewood and Aberdeen areas, and a ride in a Stryker Infantry Carrier Vehicle.

Maj. Gen. John C. Doesburg, commander of APG and the U.S. Army Soldier and Biological Chemical Command, and Brig. Gen. Dean R. Ertwine, commander of U.S. Army Developmental Test Command, greeted the secretary and his entourage at Edgewood area's airfield. A command overview by post leaders at the SBCCOM Command Operations Center followed.

From there, the entourage boarded Huey helicopters for an aerial tour of the proving ground that included a flyover of ATC test sites and ranges.

A vehicle display awaited the secretary at the ATC Trench Warfare direct fire range where he viewed the Family of Medium Tactical Vehicles, an Abrams tank, a Bradley Fighting Vehicle, the Stryker Infantry Carrier Vehicle and the Mobile Gun System.

Under the direction of Col. David Ogg, project manager of the Brigade Combat Team, Secretary White rode in the Stryker to his final stop at the U.S. Army Research Laboratory.

When it was over, Secretary White departed via Black Hawk helicopter from a nearby field thanking Doesburg and Ertwine for the informative day as he left.

From left: Jim Fasig, Secretary White, Brig. Gen. Dean R. Ertwine

From left: Jim Fasig, Secretary White, David King

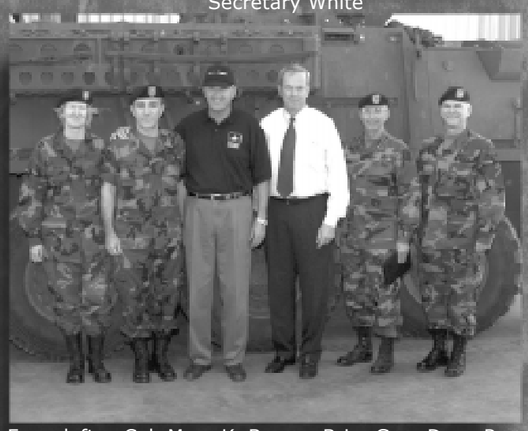
From left: Brig. Gen. Dean R. Ertwine, Jim Fasig, Secretary White

From left: Maj. Gen. John C. Doesburg, Colonel David Ogg, Secretary White

From left: Marty Bindel, Jim Fasig, Secretary White

From left: Jim Fasig, Secretary White

From left: Secretary White, Joe Gonzales



From left: Col. Mary K. Brown, Brig. Gen. Dean R. Ertwine, Secretary White, Honorable Mario P. Fiori, Maj. Gen. John C. Doesburg, Col.David Ogg

Photos by HARRY MCMULLEN

Threat Containment Unit a Product of Team Effort

ATC is part of a team working to make our nations airports more secure. The Survivabilty/Lethality Core's Maritime and Experimental Fabrication Teams have been working with other DoD and government agencies to produce the Threat Containment Unit, a device to secure luggage that may contain an explosive threat.


Threat Containment Unit

In 1995 the Federal Aviation Administration (FAA) began to install Explosive Detection Systems (EDS) into U.S. airports to screen luggage for explosive materials. The question then arose, what to do with luggage identified as a possible threat? The FAA tasked the Naval Surface Warfare Center's Carderock Division (NSWCCD) to find a container that could be used to isolate any suspect luggage identified by the EDS. These containers would need to accept a piece of luggage up to 20 inches x 28 inches x 48 inches, contain an explosive detonation, and be easy to move throughout an airport by one or two people including passing through 36 inch doors.

The Navy's research found several commercially available units that met some of these requirements but none met them all. In January 1997 the FAA tasked NSWCCD to develop a container that would comply with all of TSA's requirements. Using their expertise in blast containment the NSWCCD designed the Threat Containment Unit (TCU). Three prototype TCUs were fabricated and explosively tested by ATC. Each unit successfully contained all blast effects except for some mild venting around the door seal. The first TCU was deployed to Atlanta's Hartsfield Airport in April 1997 where it has been used twice to transport a suspect bag to a remote site.

The TCU is a steel box 78 inches long by 48 inches high and 34 inches wide. The corners and edges are formed without any sharp edges that would likely fail under an explosive load. All welds in the TCU are subject to 100 percent radiological inspection. Any flaws that are found are repaired and re-inspected. The TCU weighs 1600 pounds but can be easily transported by two people using a wheeled cart also fabricated by the Experimental Fabrication Team (EFT). The unit has gone through several design changes since it was first developed. The biggest changes were made to the door design. A bell crank mechanism was developed to make it easier for both humans and robots to open. The door was also modified from opening 90 degrees to a full 180 degrees. During robot operations it was discovered that the olive drab (green) interior resulted in poor depth perception on remote video displays. The interior color scheme was changed to provide better contrast. Additional handholds were also added to aid in the opening of the TCU door and removing the suspect bag.

To date the Experimental Fabrication Team has fabricated 30 TCUs. It is anticipated that as many as 400 TCUs will be requested in the near future. To prepare for that request the EFT's

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Engineering Unit is reviewing the cost to optimize the fabrication techniques of the TCU. The Engineering Unit was recently formed to provide a project management capability within the EFT to further optimize the work performed by the shop. This new capability will incorporate the use of computer aided design/computer aided machining and an enhanced quality assurance/quality control program for project support. In addition, project files will be electronically archived for future reference. These files would include items like cost estimates, drawings, project notes, machinery required, labor hours, etc.

The TCU is a tremendous success story. It is the product of a team effort involving the FAA Office of Civil Aviation Security (now the Department of Transportation, Transportation Security Administration), NSWCCD, ATC, and the Naval Air Warfare Center Aircraft Division (NAWCAD). NSWCCD is responsible for the design, modifications, installation and training. ATC is responsible for fabrication, including forming, welding, and inspecting the steel shells and doors, fabrication of the wheeled terminal conveyances, and explosive testing. NAWCAD is responsible for the plastic liner and bag sled, foaming of the interior, painting, and road conveyances.

For more information contact ***Rindy Retrossa*** *at DSN 298-8850, commercial 410-278-8850, or e-mail: LRetross@atc.army.mil.* ●

Trench Warfare Undergoes Major Renovations

New facility upgrades at the Trench Warfare (TW) Complex are coming on line to improve ATC's test capability for current weapon platforms and positions ATC for the network centric testing of the future. The evolution of tank fire control testing occurred hand in hand with the continued development of the Abrams Main Battle Tank. The Project Management Office for the Abrams Tank has worked closely with ATC and has provided much of the funding for these improvements. These facility improvements are described below:

- **Range Instrumentation Building** – A new building designed specifically as a data collection and analysis center will provide the best environment to collect and evaluate on-site the entire variety of internal and external ballistics data through the Test Site Integration methodology. This data includes fire-control performance measurements with the use of through-sight and gun-tube video, MIL-STD-1553B bus data, crew video and audio (intercom), muzzle and downrange projectile velocities, projectile impact location on target (to an accuracy of +/-2 centimeters), chamber pressures, high-speed photography, meteorological conditions, and the calculation of jump. In addition, the maximum range of the Multiple Target Firing Range (TW II), which is primarily used to develop hit probability estimates and fleet zero for all types of service ammunition, has been extended from 3100 meters to 4000 meters.
- **Power train maintenance and test facility** - A heavy maintenance facility was specifically designed and built to support the upcoming Common Engine Program which will provide a modern replacement for the Abrams powerpack. A shop equipped with a 40-ton overhead crane, compressed air, fire alarms and suppression, water, break room, rest room, conditioned power, is nearing completion. The shop will provide a new maintenance capability that meets all requirements to support modern turbine engine rebuild or maintenance operations. The facility will also be equipped with the latest radio frequency crane controllers to allow the crane operator to select the best position to perform safe and efficient crane operations. The state of the art facility will support the Abrams and other legacy systems, Interim systems and platforms of the Future Combat System.

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- **Electronics Lab** – The new electronics lab will consolidate combat vehicle subsystems such as electronic test equipment, training devices and communications equipment. Direct support electrical systems test sets and simplified test equipment sets require more room to be operated and maintained properly, as well as conditioned power sources to function properly. Training devices such as the Tank Weapon Gunnery Simulation System, Multiple Independent Integrated Laser Engagement System (MILES), MILES 2000, Hoffman, and Thru Sight Video will be utilized and maintained in the electronics lab. Single Channel Ground and Airborne Radio System radios, Enhanced Position Location Reporting System Radios, Command and Control base stations, intercom components, thermal sight test equipment, and other electrical subsystems are needed to fully test the vehicles as they are meant to be used in the field.

The new range instrumentation building under construction (north east side).

The Trench Warfare Operations Center (left) and the new electronics lab.

- **Vehicle storage facility** – To protect the considerable Army investment in the test fleet, the vehicle storage facility affords basic protection from the elements and allows quick relocation of vehicles that need service. Overhead lighting and sufficient space will be provided to allow for the performance of preventative maintenance inside the storage area.
- **Wash rack facility** - A state of the art, environmentally friendly, washrack facility is nearly ready to use. It complements the existing maintenance and operational testing at TW. Vehicles and powerpacks become dirty and greasy during the course of field-testing. Ground hop operations and visual inspections are required to check for leaks before and after maintenance. Powerpacks need to be extensively washed off to permit a proper inspection and repairs.
- **Parts Warehouse** - The new, modern, state of the art warehouse is designed to contain track, electronics and powertrain components away from the sun, wind, rain, snow and ice. Located at Trench Warfare, this facility will make parts readily accessible.

All improvements at Trench Warfare have been designed to consolidate and improve system test efficiency and promote increased operational safety for the testers, while focusing on the future needs of our customers and test sponsors.

For more information, contact ***Dave Zupko*** *DSN 298-3287, commercial 410-278-3287, e-mail: Dzupko@atc.army.mil.* ●

ATC as the Scalable Effects Test Center of Choice

At the request of the Program Manager-Mines, Countermine and Demolition Office (now PM-Close Combat Support (PM-CCS)) at TACOM-ARDEC, the Firepower Core of Aberdeen Test Center established the Non-Lethal Weapons Team on October 22, 2001. Development of non-lethal weapons in the past was conducted by numerous agencies and as a result, testing of these weapons was scattered amongst several teams at ATC. Creation of the Non-Lethal Weapons Team in conjunction with the PM-CCS as the lead for the U.S. Army Scalable Effects Capabilities Program brings focus to the development and testing of non-lethal weapons, now known as scalable effects capabilities. The PM-CCS selected ATC as the Scalable Effects Test Center of Choice (SETC²).

With the increase in military peacekeeping and humanitarian missions, and force protection requirements, the need for scalable effects capabilities is also increasing. Scalable effects capabilities provide the on-the-ground-field commanders with more options - whereby they can determine intent at a greater range and engage at a greater distance. The purpose of having scalable effects capabilities is to incapacitate personnel or materiel, while minimizing fatalities, permanent injury to personnel, and undesired damage to property and the environment. The traditional approach to using force used to be the two D's: Detect and Destroy. Scalable effects capabilities facilitate discrimination…giving us five D's: Detect, Delay, Deny, Defeat, and Destroy.

A lot of different technologies are being looked at, not just the feasibility of the platform or the weapon, but the delivery or application methods, and the payload - "it's not just rubber bullets anymore." Technologies include electromagnetic systems; microwaves; lasers; chemical-based substances such as calmatives, malodorants, tear gas, and pepper spray; mechanical and kinetic devices; acoustics; webs and nets; sticky foams and slippery foams; and directed energy systems.

In addition to testing new technologies, ATC is involved in developing a Test Operating Procedure for Non-Lethal Weapons - Blunt Impact, and we are working with the U. S. Army Developmental Test Command and NATO to get approval to develop an International Test Operating Procedure for Non-Lethal Weapons.

For more information contact ***Jeanne Ditter*** *at DSN 298-2281, commercial 410-278-2281, e-mail: Jditter@atc.army.mil.* ●

Slippery foam

Portable vehicle arresting barrier

The Transducer Calibration Laboratory – ISO Trendsetters

ISO is not an acronym, but rather the Greek work meaning "equal". It is used by the International Organization for Standardization to identify the various quality standards. The ISO 9000 series are international standards on quality management specifically designed to help companies effectively document quality procedures and continuously improve their quality systems. These standards, initially published in 1987 and revised every 5 years, are not specific to any particular industry, product, or service. Over 130 countries have adopted the ISO approach to more effectively manage their quality systems and ensure that all processes affecting quality are controlled, objective evidence is present, and that only products or services meeting customer specifications are delivered.

Why would anyone commit limited resources to such an effort? The Transducer Calibration Laboratory (TCL) knew that the data they provided to customers was good; however, they did not have a method to prove it. Once they learned about the ISO, they were confident that it was the mechanism to obtain the missing "proof" for the quality of their data. In the ISO process, an independent assessment of an organization's quality system is required. A successful assessment would provide customers the assurance that the products they purchase are being developed using a system that is compliant with international quality standards.

The Transducer Calibration Laboratory diligently documented their quality procedures in preparation for the final exam – an assessment of their quality system by a 3rd party agency with credentials traceable to the International Organization for Standardization. Their hard work was rewarded when the American Association of Laboratory Accreditation (A2LA) notified TCL that their Quality System was indeed compliant with international quality standard ISO/IEC Guide 25. At that time team members let out a sigh of relief and entertained thoughts of boasting about being the first ATC organization to be afforded that unique recognition.

Just a few months later, the Transducer Calibration Laboratory learned that the quality standard used to earn their accreditation had been replaced by new standard and their quality system would have to pass another extensive assessment in order to maintain their accreditation.

The Transducer Calibration Team is led by Mike Clark and includes Dave Porter, Bill Burget, and Curt Croom. The team researched the requirements of the new standard, ISO/IEC 17025, and developed the following plan of action for transitioning their accreditation to the new standard:

- Conducting a gap analysis to identify new requirements to be included in the quality documentation
- Engaging team resources to perform assigned tasks, developing milestones which accommodated performance of test operations and ISO requirements
- Coordinating a second A2LA assessment of TCL's revised quality system
- Completing all corrective action requirements resulting from the A2LA assessment and positioning TCL for accreditation to the new standard

TCL's efforts were again rewarded when A2LA issued a certificate stating that everything is running in compliance with the ISO/IEC 17025 quality standard. Results related to the TCL quality initiative include:

- The ability to provide customers with highly credible test data because it was developed using procedures that comply with ISO standards
- Serving as the model for other ATC laboratories to emulate in their pursuit of ISO accreditation
- Instilling pride in TCL team members for their professional achievement

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- In addition, TCL completed the arduous transition to the new quality standard in a manner that did not delay any test programs

Other ATC elements are using the lessons learned from TCL's experience to develop their own quality system (imitation is the best form of praise). In Jun 02, ATC made a commitment to become an ISO Registered organization and entered into a partnership with the Maryland ISO Consortium to help expedite the process. While we are at the early stages of this 18 month process, we started our journey by designating Core Directors as members of the ISO Executive Steering Committee, developing the ATC Quality Policy, and by selecting "test management" as the scope, or focal point for the corporate initiative.

ATC's goal is to use the TCL example and become ISO trendsetters within the test community by becoming registered as an ISO compliant organization by FY04.

*Article provided by **Rick Kost**, Command Staff.*

ATC Reviews MOA with the 300th Support Group

On June 25, 2002, ATC commander Col. Mary Brown met with Lt. Col. Hazel Robinson, the 326th Maintenance Battalion commander, in order to review a memorandum of agreement (MOA) between ATC and the 300th Support Group for maintenance support.

The MOA was originally signed on May 12, 2001 by Col. Andrew Ellis, ATC's commander during that time, and Col. Charles Campbell, commander of the 300th Area Support Group (ASG), Fort Lee, VA. The 300th Support Group belongs to the 99th Regional Support Command, Coraopolis, PA.

ATC needs maintenance support in their maintenance facilities. At the same time, the 326th Maintenance Battalion, a battalion utilized by the ASG to task and organize their subordinate maintenance companies to provide maintenance support, needs external maintenance missions in order to provide hands on training and keep the soldiers proficient in their maintenance military occupational specialties (MOS). By partnering with the 326th Maintenance Battalion, ATC receives cost effective labor while the soldiers receive hands-on training. Chief Warrant Officer Hudson, the 326th Maintenance Battalion's Action Officer said, "To me it's great training. Anytime a soldier can turn wrenches, it is a good experience."

According to the MOA, the 326th Maintenance Battalion's responsibilities include providing administrative, logistical, and training support; maintaining command and control of all reserve units/personnel conducting "Hot Missions" for ATC on Aberdeen Proving Ground; providing personnel for maintenance support as directed by ATC including providing full time maintenance and administrative personnel to follow up on work orders and maintenance activities that are not completed over the weekend; and providing general mechanics toolboxes. In return, ATC supports the 326th Maintenance Battalion in arranging for barracks and meals, provides environmentally controlled maintenance facilities where actual maintenance is conducted with ATC soldiers, civilians and contractors, and arranges access to the security areas in order for the 326th to be able to perform maintenance support.

According to Dick Samples, ATC Warfighter team leader, "The MOA has worked extremely well for both ATC and the 326th Maintenance Battalion. ATC is receiving cost effective labor, while the 326th is receiving valuable training."

Based on the previous successes of the MOA, ATC would like to continue the agreement between ATC and the 326th Maintenance Battalion.

*Article provided by **Susan Hagan**, ATC Public Affairs Office.*